#### RESEARCH

at the Space Vehicles and Directed Energy Directorates is broad and varied.

Research areas include:

- · Spacecraft Communications Systems
- · Reconfigurable Electronics Systems
- · Guidance, Navigation, and Control Systems
- · Molecular & Radiation Hardened Electronics
- Electronic Components Design and Packaging
- · Satellite Design & Systems Engineering
- · Hyperspectral & Remote Sensing Techniques
- · Large Deployable Space Structures
- · Composite Structures Design and Analysis
- · Thermal Design and Control
- · Photovoltaics and Power Generation
- · Estimation, Data Fusion, & Autonomous Space Systems
- · Advanced Cryogenic Cooling Technologies
- Solar Science and Space Environment Modeling
- Charged Particle and Atmospheric Oxygen Research
- · Advanced Laser Concepts
- · Modeling and Simulation for High Energy Lasers and High Power Microwaves
- · High Power Microwave Sources
- Advanced Techniques for Space Surveillance







Attendees of the 2007 end-of-the-year poster session, including AFRL Scholars, Program Mentors, and Keynote Speaker Dr. Robert Fugate.

## SPACE SCHOLARS and DIRECTED ENERGY SCHOLARS

Summer
Internship Program
for Science and
Engineering Students



Air Force Research Laboratory

SPACE VEHICLES DIRECTORATE, DIRECTED ENERGY DIRECTORATE, DATE OF SCIENTIFIC RESEARCH

http://www.wpafb.af.mil/afrlhttp://www.kirtland.af.mil/afrl\_vshttp://www.kirtland.af.mil/afrl\_dehttp://www.wpafb.af.mil/afrl/afosr

# THE SCHOLARS PROGRAM is conducted by the Air Force

### **PURPOSE**

Space Scholars and Directed Energy Scholars participate in a unique summer program where they are involved firsthand in research pertaining to current and future Air Force technology needs.

Research Laboratory's Space Vehicles and Directed Energy Directorates, which have major facilities at Kirtland Air Force Base, Albuquerque, New Mexico; Hanscom Air Force Base, Bedford, Massachusetts; the National Solar Observatory in Sunspot, New Mexico; and the Air Force Maui Optical and Super Computing Center in Maui, Hawaii.



### **PROGRAM**

The Space Scholars and Directed Energy Scholars Program offers select students opportunities to conduct specific research which is mentored by nationally recognized science and engineering experts.

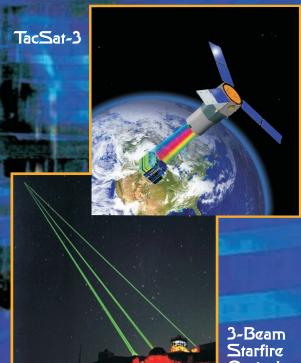
Descriptions of current research topics appear on our web sites, and applicants are encouraged to contact listed mentors specializing in the student's particular area of interest.

Successful applicants will research novel projects designed to advance national military space and directed energy technology and science. Students are also encouraged to coauthor an article—based on their summer research—for submittal to a refereed scientific journal or conference.

Motivated undergraduate seniors, masters and doctoral students with top academic credentials in scientific and engineering fields are invited to apply.

Only US citizens are eligible.

AFRL is an equal opportunity employer.



**Optical** Range

Application materials and information regarding additional research topics can be obtained on our web sites:

http://www.vs.afrl.af.mil/SpaceScholars/ http://www.de.afrl.af.mil/Scholars/





